**Assessment, Modelling and Scenarios for Ecosystems Management**

**Coordinator:** A. Troumbis

**Lecturers/Instructors**: A. Troumbis, A. Kizos, M. Hatziantoniou, M. Balis et al.

**ECTS Credits**: 6

**Pre-requisites**:  none

**Course e-learning site:** <https://aegeanmoodle.aegean.gr>

### Aims, Objectives and Learning Outcomes: *Scenarios and trends in insular adaptation*

### The course aims at developing in-depth understanding of interactions of Ecological Modernization Theory (EMT) and concrete applications of Ecosystem Management (EM) concepts, through field experience and lectures on a problem-solving approach. The 2019 AMSEM project refers to the adaptation potential of the regional/insular economy sectors to sustainability transition(s) of Lesvos Island social-economic system (LSES) to mainstream global strategies such as Aichi 2020 targets, SDGs and IPCC scenarios. Student groups will be in charge of developing scenarios in semi-natural ecosystems and traditional landscapes and biodiversity preservation, wise use and equitable distribution of profits. Lesvos Island encapsulates versions of the EM problem especially concerning multiple/overlapping scales of problem-definition; further, data bases are available and local networks of collaborators are clearly identified. 2019 research program deals with innovation, technology, entrepreneurship and command in the olive oil production system of Lesbos Island.

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| **Learning Outcome** | **Assessment** | **Activities** | **Estimated Workload** |
| 1. Understand and use basic concepts of EMT, EM and LSES. 2. Understand the complexity, meaning and evolution of Human/ Nature interactions. 3. Handle and utilize available ecological data sets to identify critical elements, to reach conclusions and to make decisions for ecosystem management | Students will be individually graded based on:   1. Individual Assessment -examination   (50%)   1. Evaluation of group assignment and presentation (50%) | Lectures  Reading assignment  Class discussion  Field Trip  Group Assignment  Public presentation | 35 h  27 h  8 h  30 h  45 h  5 h |
| Total hours 150 |  |  | 150 h |

**Additional information including a full description of course assessments, schedule, and readings can be found in the full course syllabus located in at the course’s e-learning site.**